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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,930	10/16/2000	Katsunori Tamura	P10718300003	6945

7590 08/17/2004

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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/647,930	Applicant(s) TAMURA ET AL.	
	Examiner Virginia Manoharan	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed "...said partition is biased such that the cross-sectional area of the first chamber differs from that of the second chamber.." in claim 1, section (i) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 14-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) The claims are rejected for the same reasons as set forth at page 3, section b of the previous Office Action. That is, it is not seen how the mere distributor having a plurality of holes can make the "amount of liquid differ among each other". [Since applicants did not address this rejection, it is assumed they are acquiescing therein].

(b) The addition of the word "type" as in "open static-pressure type stand pipe" in claim 16 renders a rather definite claim indefinite.

(c) The "each of said column body" in claim 17 would presupposed a plurality of column body, however, claim 17 (a) initially recite just a "column body". See also claim 18.

Claims 1-19 are directed to an invention not patentably distinct from claims 1-19 of commonly assigned 10/279,919.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-19 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-19 of copending Application No. 10/279,919. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 9-299701 in view of Kaibel (5,897,748) and Kreis et al (56,501,079) or Hofstetter (4,557,877).

Japan '701 discloses a distillation apparatus comprising:

a column body; and a partition for dividing the interior of said column body into a plurality of chambers, which, are adjacent to one another. The apparatus of Japan '701 differs from the claimed invention in that claims 14 & 15, for example, recite "...a collector disposed within said column body.."

However, the above claimed "collector" is known in the field of partitioned distillation as taught by Kaibel '748. To incorporate the collector taught in the kaibel's reference to the apparatus of JP '701 would have been obvious to one of ordinary skill in the art in view of the suggestion at col.1, lines 37-42 of Kaibel. That is, Kaibel suggests that the "...manufacturers of packings therefore recommend, as a common remedy, repeated collection of the liquid and

redistribution thereof via intermediate distributors. This is to date the most promising possibility for reliably achieving high product purities in packed columns..”

Furthermore, a distributor having plurality of channels as claimed in claim 14; or having tubular shape as claimed in claim 16 are obviously mere variations of known liquid distributors for use in a mass transfer column. See the suggestion provided in the abstract of Kreis et al. See also the abstract of Hofstetter . To further incorporate the known variations of liquid distributor taught in Kreis or Hofstetter to the apparatus of JP '701 would have been obvious to one of ordinary skill in the art for the advantage taught by Hofstetter. Note the abstract, which teaches, e.g., that the “the flow channel permits a uniform distribution of the liquid across the cross-section of a mass transfer/heat exchange section of a mass transfer/heat exchange column. The flow channels may be in the form of downwardly bent tubes, downwardly angled tubes or troughs with downwardly directed tubes at one end or orifices at one end....”

The claimed laminas in claim 18 is rendered obvious at pages 14-16 of the translated JP '701.

Claims 1-13 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The

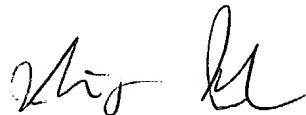
Art Unit: 1624

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manoharan/tgd

August 10,2004


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 122 / 724
8/16/04